

Abstract of the Disclosure

A hydrostatic release mechanism is provided which comprises a sealed housing having an interior volume and a tunnel adapted to receive a tether extending therethrough. A depth sensor is mounted to the sealed housing and has a diaphragm covering an opening between the interior  
5 volume and the ambient conditions. A trigger is contained within the sealed housing and is operably connected to the diaphragm and a firing mechanism. The firing mechanism is actuated by movement of the trigger in response to inward movement of the diaphragm when the pressure on the diaphragm exceeds a predetermined force. The firing mechanism includes a piston having a blade which moves in response to the expanding gases from a pyrotechnic cartridge and passes  
10 through the tunnel thereby severing the tether extending therethrough.